



SEQUENCE LISTING

<120> EXPRESSION MODULATING SEQUENCES

<130> 2415281/EJH

<140> International

<141> 2001-06-13

<150> US 09/880,253

<151> 2001-06-13

<160> 60

<170> PatentIn version 3.0

<210> 1

<211> 307

<212> RNA

<213> mouse

<400> 1

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gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	agagacugug	gaucaccaag	180
acugaacggc	ugcuucugcc	cacucuuugg	gauguuucuu	cuuaaggaag	cugaaaaacg	240
uuauugauuu	ccaugaccag	uuucugagau	gaggguuaga	gguccccuca	uccuucccug	300
agacgcc						307

<210> 2

<211> 188

<212> RNA

<213> mouse

<400> 2

aguuuccagc	ccuggaccac	gcaucccgag	caccgcgccc	cgacggaggu	cucuugucc	60
gcgccucucc	cacauacuag	aaaucucucc	cuuucuugag	guugggauga	agaagcaguu	120
gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	agguccccuc	auccuucccu	180
gagacgcc						188

<210> 3

<211> 74

<212> RNA

<213> mouse

<400> 3

aguuuccagc	ccuggaccac	gcaucccgag	caccgcgccc	cgacggaggu	ccccucaucc	60
uucccugaga	cgcc					74

<210> 4

<211> 219

<212> RNA

<213> human

<400> 4

agacuccagc	ccuggaccgc	gcaucccgag	cccagcgccc	agacagaguc	uguguaucuc	60
ugucucaggg	aaccgugggu	cuuugucucc	gccucuccca	uauauuagaa	auaucuuacu	120
uucaugcggu	uaaguugaag	aggcuggagg	gauggcuagc	uggaugucug	cguuguagag	180
agguaacccc	agugucccca	caccucccuc	ugagacgcc			219

<210> 5
 <211> 75
 <212> RNA
 <213> human

 <400> 5
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 cuccucugag acgcc 75

 <210> 6
 <211> 8
 <212> DNA
 <213> artificial sequence

 <220>
 <223>Description of Artificial Sequence:This sequence represents
 a Kozac sequence.

 <220>
 <221> misc_feature
 <222> (2)..(2)
 <223> n = any nucleotide

 <220>
 <221> misc_feature
 <222> (8)..(8)
 <223> n = any nucleotide

 <400> 6
 rnccrwgn 8

 <210> 7
 <211> 10
 <212> DNA
 <213> artificial sequence

 <220>
 <223>Description of Artificial Sequence:This sequence represents
 a strong Kozac sequence.

 <400> 7
 gccrccrwgg 10

 <210> 8
 <211> 10
 <212> DNA
 <213> artificial sequence

 <220>
 <223>Description of Artificial Sequence:This sequence represents
 a weak Kozac sequence.

 <220>
 <221> misc_feature
 <222> (10)..(10)
 <223> n = any nucleotide

 <400> 8
 atttccrwgn 10

<210> 9
 <211> 10
 <212> DNA
 <213> artificial sequence

 <220>
 <223>Description of Artificial Sequence:This sequence represents
 a 5' leader sequence.

 <400> 9
 atttccttga 10

 <210> 10
 <211> 10
 <212> DNA
 <213> artificial sequence

 <220>
 <223>Description of Artificial Sequence:This sequence represents
 a 5' leader sequence with a weak Kozac sequence.

 <400> 10
 atttccatga 10

 <210> 11
 <211> 11
 <212> DNA
 <213> artificial sequence

 <220>
 <223>Description of Artificial Sequence:This sequence represents
 a 5' leader sequence with a strong Kozac sequence.

 <400> 11
 gccagccatg a 11

 <210> 12
 <211> 21
 <212> DNA
 <213> primer

 <400> 12
 agtttccagc cctggaccac g 21

 <210> 13
 <211> 21
 <212> DNA
 <213> primer

 <400> 13
 ggcgtctcag ggaaggatga g 21

 <210> 14
 <211> 27
 <212> DNA
 <213> primer

 <400> 14
 gctagcagtt tccagccctg gaccacg 27

<210> 15	
<211> 27	
<212> DNA	
<213> primer	
<400> 15	
accggtggcg tctcagggaa ggatgag	27
<210> 16	
<211> 17	
<212> DNA	
<213> primer	
<400> 16	
gaggtgggaa tcctaag	17
<210> 17	
<211> 28	
<212> DNA	
<213> primer	
<400> 17	
ccagaaagtc cttctgttcc catgctgg	28
<210> 18	
<211> 21	
<212> DNA	
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<210> 19	
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<400> 19	
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<210> 20	
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<213> primer	
<400> 20	
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<210> 21	
<211> 27	
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<213> primer	
<400> 21	
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<210> 22	
<211> 27	
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<213> primer	

<400> 22	
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<210> 23	
<211> 27	
<212> DNA	
<213> primer	
<400> 23	
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<210> 24	
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<212> DNA	
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<210> 25	
<211> 27	
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<210> 26	
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<400> 26	
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<210> 27	
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<213> primer	
<400> 27	
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<210> 28	
<211> 27	
<212> DNA	
<213> primer	
<400> 28	
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<210> 29	
<211> 27	
<212> DNA	
<213> primer	
<400> 29	
gctagcagtt tccagccctg gaccacg	27
<210> 30	
<211> 27	

<212> DNA
<213> primer

<400> 30
accggtggcg tctcagggaa ggatgag 27

<210> 31
<211> 21
<212> DNA
<213> primer

<400> 31
agactccagc cctggaccgc g 21

<210> 32
<211> 21
<212> DNA
<213> primer

<400> 32
ggcgtctcag aggaggggtg g 21

<210> 33
<211> 877
<212> DNA
<213> mouse

<400> 33
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caggcgggag accacctggg agcgatgggg gagggctgag gagatgctct gacgcctagg 120
gactcaccct ctcccagaag gagacctggg gctcagaggc aatatggggt tgggagagtt 180
tggggagagc aattaggaag tttgggtgtt ttcttgtttt gctttaattt gtgccttctt 240
ttctctgcat ccccttcttt tttcttgaca atctgtgtct gtcccaggtc tctttgtccg 300
cgctctctcc acatactaga aatctctctcc tttcttgagg ttgggatgaa gaagcagttg 360
ggacggccag ctggaggtct gcgtggtaga gggaaactcca ggtcgcgtct gagcgccgtt 420
ggaagacgtc agtgtttcta agacgggacc caccgcaaaa gaaggagcg ctcaagtggg 480
tgggagtgc ggtgtgccag gcaacagaac cctgagggc cgggctggga ttggactcct 540
gacctgtggc tgtgacagat gtgcacatgg ggtttagggg caaaggagtg ggtttggact 600
cgggaggagg ctgggtgggt ttcttaacat gtggtgtagg ccgtaaaaaa atccctagga 660
attctggact tctgagtccc aaagactgtg ggcagggccc ccgaggaaaa gtaagagctg 720
gggaaacctt gttttgacct tctgacctca agaccaccgg ggcaactgaa gccaggcgcc 780
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ttgggceccc cgcccaaacc gggatcttgg ggaccga 877

<210> 34
<211> 427
<212> DNA
<213> mouse

<400> 34
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agagggaaaa gaaaaaagaa aagcaagttag agagagctca tggcattaaa aatcacctag 120
gacttgtgtt ggatcagtta gtccctaaca ttcccttgta catacagaga ctgtggatcc 180
ccaagactga acggtgctt ctgcccactc tttgggatgt ttcttcttaa ggaagctgaa 240
aaacgttatt gatttccatg accagtttct gagatgaggg ttagaggtac aagggacatg 300
ctggcgaggg gggggggggg aaatctgtgc ctgaaactgt catthtatct ctctgtttcg 360
ctccatcttt ataactggca gatctacatt cctttccaca ggtcccctca tccttccttg 420
agacgcc 427

<210> 35
<211> 581

<212> DNA
<213> human

<400> 35
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ggcaggcggg ggaccacctg ggagcagtgg gggagggggc ctgaggggat gctcagcttc 120
ttagggactc atcccagacc cgggacatag aggcaaaata ggggtgggag agcctggggt 180
gagacattag aaactccaga tttttcactt gtgtctttct ctgtatcttc tttttcttcc 240
ctttttttct tctgtcagtc tgtgtatctc tgtctcaggg aaccgtgggt ctttgtctcc 300
gcctctccca tatattagaa atatcttact ttcatgcggt taagttaaag aggctggagg 360
gatggctagc tggagggtctg cgttgttagag aggtaacccc aggtgtgtgc ctgcgcgtgg 420
ggttaggaaga tgtcagtgtt tctgaaagggt ggggactgca aaggagggag ctccaagtgg 480
ggtggggacg ggtgtgtggg aggcaacaga gccactaggg gccaccaggc ttgaaccttt 540
gacctgtctt gtgacagatg tgccagtggg tgcttgtgct t 581

<210> 36
<211> 573
<212> DNA
<213> human

<400> 36
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ggacatcatt tccccttacc cctcccctca ctcagcagat gatgcttttt ttgttttgag 120
acggagtcta gctctgtcac ccaggctgga gtgcagtggc accatctcgg ctactgaaa 180
cctccgcctc ccaggttcaa gcgattcttc tgcctcagcc ttccgagtag ctgggattac 240
aggcaccgcg catcatgact ggctaatttt tgtttttttg tagagacggg ggtttcacca 300
tgttggccag gctggctctc aactgtcctc aggtgatect cccgcctcag cctctcaaag 360
cgttgggaatt acaggcgtga gccactgtgc cgggctcagt gatgctcttt tcaactcgaa 420
ttccgtggca gatgtcttag aggggtgggg gataccaggg atgttctgcc caggattctg 480
tgccctgagc tgctgtctga cagtctctat ttcctccacc tttataccta ccttcccttt 540
ctgcagtgtc cccacacctt cctctgagac gcc 573

<210> 37
<211> 22
<212> DNA
<213> primer

<400> 37
ttgagctcag ttccagccct gg 22

<210> 38
<211> 20
<212> DNA
<213> primer

<400> 38
aaccatggcg tctcaggga 20

<210> 39
<211> 18
<212> DNA
<213> primer

<400> 39
ggtttcccag tcaccgac 18

<210> 40
<211> 21
<212> DNA
<213> primer

<400> 40
acacaggaaa cagctatgac c 21

<210> 41
<211> 307
<212> RNA
<213> mouse

<400> 41
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gcgccucucc cacauacuag aaaucucucc cuuucuuagag guugggauga agaagcaguu 120
gggacggcca gcuggagguc ugcgugguag agggaacucc agagacugug gauccecaag 180
acugaacggc ugcuuucucc cacucuuugg gauguuucuu cuuaaggaag cugaaaaacg 240
uuauugauuu ccaugaccag uuucugagau gaggguuaga gguccecuca uccuucccug 300
agacgcc 307

<210> 42
<211> 307
<212> RNA
<213> mouse

<400> 42
aguuucaugc ccuggaccac gcaucccgag caccgcgccc cgacggaggu cucuuugucc 60
gcgccucucc cacauacuag aaaucucucc cuuucuuagag guugggauga agaagcaguu 120
gggacggcca gcuggagguc ugcgugguag agggaacucc agagacugug gauccecaag 180
acugaacggc ugcuuucucc cacucuuugg gauguuucuu cuuaaggaag cugaaaaacg 240
uuauugauuu ccaugaccag uuucugagau gaggguuaga gguccecuca uccuucccug 300
agacgcc 307

<210> 43
<211> 307
<212> RNA
<213> mouse

<400> 43
aguuucaugc ccaugaccac gcaucccgag caccgcgccc cgacggaggu cucuuugucc 60
gcgccucucc cacauacuag aaaucucucc cuuucuuagag guugggauga agaagcaguu 120
gggacggcca gcuggagguc ugcgugguag agggaacucc agagacugug gauccecaag 180
acugaacggc ugcuuucucc cacucuuugg gauguuucuu cuuaaggaag cugaaaaacg 240
uuauugauuu ccaugaccag uuucugagau gaggguuaga gguccecuca uccuucccug 300
agacgcc 307

<210> 44
<211> 307
<212> RNA
<213> mouse

<400> 44
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gcgccucucc cacauacuag aaaucucucc cuuucuuagag guugggauga agaagcaguu 120
gggacggcca gcuggagguc ugcgugguag agggaacucc agagacugug gauccecaag 180
acugaacggc ugcuuucucc cacucuuugg gauguuucuu cuuaaggaag cugaaaaacg 240
uuauugauuu ccaugaccag uuucugagau gaggguuaga gguccecuca uccuucccug 300
agacgcc 307

<210> 45
<211> 307
<212> RNA
<213> mouse

<400> 45

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gcgccucucc	cacauacuag	aaaucucucc	cuuucuugag	guugggauga	agaagcaguu	120
gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	agagacugug	gaucaccaag	180
acugaacggc	ugcuucugcc	cacucuuugg	gauguuucuu	cuuaaggaag	cugaaaaacg	240
uuauugauuu	ccaugaccag	uuucugagau	gaggguuaga	ggucuccuca	uccuucccug	300
agacgcc						307

<210> 46
 <211> 307
 <212> RNA
 <213> mouse

<400> 46						
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gcgccucucc	cacauacuag	aaaucucucc	cuuucuugag	guugggauga	agaagcaguu	120
gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	agagacugug	gaucaccaag	180
acugaacggc	ugcuucugcc	cacucuuugg	gauguuucuu	cuuaaggaag	cugaaaaacg	240
uuauugauuu	ccaugaccag	uuucugagau	gaggguuaga	ggucuccuca	uccuucccug	300
agacgcc						307

<210> 47
 <211> 188
 <212> RNA
 <213> mouse

<400> 47						
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gcgccucucc	cacauacuag	aaaucucucc	cuuucuugag	guugggauga	agaagcaguu	120
gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	aggucuccuc	auccuucccu	180
gagacgcc						188

<210> 48
 <211> 188
 <212> RNA
 <213> mouse

<400> 48						
aguuuccagc	cauggaccac	gcaucccgag	caccgcgccc	cgauaggaggu	cucuugucc	60
gcgccucucc	cacauacuag	aaaucucucc	cuuucuugag	guugggauga	agaagcaguu	120
gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	aggucuccuc	auccuucccu	180
gagacgcc						188

<210> 49
 <211> 188
 <212> RNA
 <213> mouse

<400> 49						
aguuuccagc	cauggaccac	gcaucccgag	caccgcgccc	cgauaggaggu	cucuugucc	60
gcgccucucc	cacauacuag	aaaucucucc	cuuucuugag	guugggauga	agaagcaguu	120
gggacggcca	gcuggagguc	ugcgugguag	agggaacucc	aggucuccuc	auccuuccau	180
gagacgcc						188

<210> 50
 <211> 74
 <212> RNA
 <213> mouse

<400> 50						
aguuuccagc	cauggaccac	gcaucccgag	caccgcgccc	cgacgggaggu	ccccucaucc	60
uucccugaga	cgcc					74

<210> 51
 <211> 74
 <212> RNA
 <213> mouse

<400> 51
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 uucccugaga cgcc 74

<210> 52
 <211> 74
 <212> RNA
 <213> mouse

<400> 52
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 uucccugaga cgcc 74

<210> 53
 <211> 219
 <212> RNA
 <213> human

<400> 53
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 uucaugcggu uaaguugaag aggcuggagg gauggcuagc uggaugucug cguuguagag 180
 agguaacccc agugucccca caccuccuc ugagacgcc 219

<210> 54
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 <212> RNA
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 ugucucaggg aaccgugggu cuuugucucc gccucuccca uauauuagaa auaucuuacu 120
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 agguaacccc agugucccca caccuccuc ugagacgcc 219

<210> 55
 <211> 219
 <212> RNA
 <213> human

<400> 55
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 uucaugcggu uaaguugaag aggcuggagg gauggcuagc uggaugucug cguuguagag 180
 agguaacccc agugucccca caccuccuc ugagacgcc 219

<210> 56
 <211> 75
 <212> RNA
 <213> human

<400> 56
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 cuccucugag acgcc 75

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<210> 57
<211> 75
<212> RNA
<213> human

<400> 57
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cuccucugag acgcc 75

<210> 58
<211> 75
<212> RNA
<213> human

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cuccucugag augcc 75

<210> 59
<211> 3707
<212> DNA
<213> mouse

<220>
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<222> (1762)..(1762)
<223> n = any nucleotide

<220>
<221> misc_feature
<222> (1767)..(1767)
<223> n = any nucleotide

<220>
<221> misc_feature
<222> (1769)..(1769)
<223> n = any nucleotide

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<221> misc_feature
<222> (1812)..(1812)
<223> n = any nucleotide

<220>
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<222> (2994)..(2994)
<223> n = any nucleotide

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cgtagcgtgc ggtggcaaca gcgagaaaaa gtttttgcaa aggggaaaaa aaaagtgtgc 180
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aggttgggag ggtgggggtg cactgaagct gcgctgcagt ggccctgtga cccccctccc 300
cgccacacac ctcccccccc ccccagcccc gtttccagcc ctggaccacg catcccagc 360
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tctgtgtctg tcccaggtct ctttgtccgc gcctctccca catactagaa atctctccct 660
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ggaactccag	gtctgtctct	gaggcccggt	tggaagacgt	cagtgtttct	aagacggaac	780
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